S/137/60/000/010/032/040
A006/A001

Investigations of the Properties of High-Speed Steel Manufactured From Chips

conventional high-speed steel. Annealed chip high-speed steel forgings are hard to cut which is obviously connected with the presence of oxides along the chip element boundaries.

T.F.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

ZIMIN, Yu.P.; MALEVANNYY, V.I.

Machining G13L steel with cutting tools sharpened by diamond wheels. Stan. i instr. 36 no.8:26 Ag '65. (MIRA 18:9)

ZIMIN, Z.G., red.; BUDANOV, G.V., otv.za vypusk; REZNIKOV, A.I., otv.za vypusk; MUNITS, A.P., red.izd-va; MEDVEDEV, L.Ya., tekhn.red.

[Cost manual for assembling equipment] TSennik na montazh oborudovaniia. No.28 [Equipment for enterprises of the food industry] Oborudovanie predpriiatii pishchevoi promyshlennosti. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. 1958. 244 p. (MIRA 12:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
(Food industry--Equipment and supplies)

ZIMINA, A.

"From the Bug to the Oder" by A.K. Timashev. Reviewed by A. Zimina. Geog. v shkole 25 no.6:88-89 N-D '62. (MIRA 15:12)
(Poland--Geography)
(Timashev, A.K.)

ZIMINA, A.

"Globe;" a geographical yearbook for children. Reviewed by A. Zimina. Geog. v shkole 22 no.1:91-92 Ja-F '59. (MIRA 12:4)

(Geography--Yearbooks)

ZIMINA, A.; DOMETTI, A.

Brief news. Geog. v shkole 24 no.4:87-88 Jl-Ag '61. (MIRA 14:8)
(Mines and mineral resources--Maps--Symbols)
(Geography--Study and teaching)

ZIMINA, A.

Textbooks on the geography of one's own province. Geog. v shkole 26 no.2:86-89 Mr-Ap '63. (MIRA 16:4)

(Bibliography--Geography--Textbooks)

VESELOV, P.I., dotsent; ZHUKOVA, N.M.; ZIMINA, A.I., tekhnik

Fluctuations of the percentage of fat in milk and methods of determining the butterfat percentage of cows for a lactation period. Sbor. nauch. trud. Ivan. sel'khoz. Inst. no.19: 163-166 '62. (MIRA 17:1)

1. Kafedra razvedeniya sel'skokhozyaystvennykh zhivotnykh i molochnogo dela (zav. - prof. V.Ye. Al'tshuler) Ivanovskogo sel'skokhozyaystvennogo instituta. 2. Starshiy laborant kafedry razvedeniya sel'skokhozyaystvennykh zhivotnykh i molochnogo dela Ivanovskogo sel'skokhozyaystvennogo instituta. (for Zhukova).

ZIMINA, A.M.

Proper use of medical instumentarium. Zdrav. Turk. 7 no.3: 42-43 Mr '63. (MIRA 16:6)

1. Zaveduyushchaya vtorym terapevticheskim otdeleniyem Respublikanskoy klinicheskoy bol'nitsy imeni N.I.Pirogova.
(MEDICAL INSTUMENTS AND APPARATUS)

BIBIK, A.Ye.; DOMETTI, A.A.; ZIMINA, A.M.; LAKTIONOVA, P.I.; MAKSIMOV, M.A.; MOROSHKINA, O.I.; MYASISHCHEVA, B.I.; ERDELI, V.G.; NECHAYEVA, Yu.A.; PADEZHNOV, A.I.; PREOBRAZHENSKIY, A.I.; RAUSH, V.A.; RYNDIN, A.A.; SAUSHKIN, Yu.G.; SMIRNOVA, N.P.; STROYEV, K.F.; TOPORKOV, I.D.; FREYKIN, Z.G.

Fedor Pavlovich Kalinin; obituary. Geog. v shkole 26 no.2:85 Mr-Ap '63. (MIRA 16:4)

(Kalinin, Fedor Pavlovich, 1899-1962)

ZIMINA, A.M.

Level of blood prothrombin and fibrinogen in myocardial infarct and stenocardia. Zdrav. Turk. 7 no.5:8-11 (41) May '63.
(MIRA 16:8)

1. Iz kafedry fakul'tetskoy terapii (zav. - dotsent Ye.A. Pletnev) Turkmenskogo gosudarstvennogo meditsinskogo instituta i Turkmenskoy respublikanskoy klinicheskoy bol'nitsy (glavnyy vrach M.B.Shapiro).
(BLOOD—ANALYSIS AND CHEMISTRY) (HEART—INFARCTION)
(ANGINA PECTORIS)

Zimina, A.M.

ZIMINA, A.M.

Work of geography teachers in the spring and summer. Geog. v shkole 21 no.2:1-7 Mr-Ap '58. (MIRA 11:2)
(Geography--Study and teaching)

ZIMINA, A.M.

Treatment of some internal diseases by intravenous infusions of novocaine. Zdrav. Turk. 5 no.4:22-24 Jl-Ag '61. (MIRA 14:10)

1. Iz gospital'noy terapevticheskoy kliniki (nauchnyy rukovoditel' - prof. S.L.Faufman [deceased]) Turkmenskogo gosudarstvennogo meditsinskogo instituta imeni Stalina.

(NOVOCAINE) (INTRAVENOUS THERAPY)

SOLOMYANYY, V.M.; ZIMINA, A.M.

Toxic action of bignual. Sovet med. 16 no.4:34 Apr 1952. (CIML 22:1)

1. Professor for Solomyannyy. 2. Ashkhabad.

DOMETTI, A.A.; ZIMINA, A.M.; KALININ, F.P.; LAKTIONOVA, P.I.; MOROSHKINA, O.I.; MYASISHCHEVA, Ye.I.; NECHAYEVA, Yu.A.; PREOBRAZHENSKIY, A.I.; RUSH, V.A.; RYNDIN, A.A.; SAUCHKIN, Yu.G.; STROYEV, K.F.; TEREKHOV, P.G. [deceased]; FREYKIN, Z.G.; SHESTAKOV, V.N.

Nikolai Nikolaevich Baranskii's 80th birthday. Geog. v shkole 24 no.4:7-8 Jl-Ag '61. (MIRA 14:8)
(Baranskii, Nikolai Nikolaevich, 1881)

SOLOMYANNYY, V. M.; ZIMINA, A. M.

Malariotherapy

Toxic action of "bigumal," an antimalarial synthetic preparation. Sov. med. 16 no. 4, 1952

Monthly List of Russian Accessions, Library of Congress, September 1952 UNCLASSIFIED

ACCESSION NR: AP4019271 S/0192/64/005/001/0142/0144

AUTHORS: Kuznetsov, V.G.; Bakulina, V.M.; Tokareva, S.A.; Zimina, A.N.

TITLE: X ray study of sodium ozonide, NaO sub 3

SOURCE: Zhurnal strukturnoy khimii, v. 5, no. 1, 1964, 142-144

TOPIC TAGS: x ray study, sodium ozonide, symmetry, cell dimension, interplaner distance, volume centered tetragonal lattice, sodium, sodium compound

ABSTRACT: Sodium ozonide was obtained by reaction of ozone with dehydrated sodium hydroxide at -80C for 3 hrs. with subsequent extraction from liquid ammonia. The solvent was removed in a vacuum at -50C. The crystallic product contained 85% sodium ozonide. Specimens of sodium ozonide synthesized at a temperature interval of 0 to 5C and separated by subsequent extraction with liquid ammonia were studied simultaneously. From X-ray photographs it was

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ACCESSION NR: AP4019271

possible to measure more lines and obtain more accurate values, and also to determine the symmetry and cell dimensions. Indexing of x-ray photographs by means of Helly's curves provided better agreement of measured and calculated interplaner distances for a volume centered tetragonal lattice with the ratio c/a = 0.66 and with periods a = 11.65 and c = 7.66 Å. Deviation is observed for the first diffuse line with d = 3.927 Å, which is explained by a large error of measurement for this line. The density of sodium ozonide found by the hydrostatic suspension method, is 1.6 g./cm3. The number of molecules in the unit cell is 14. As a result of analysis of extinction and of value N = 14, spatial group I of 4ttt was tentatively selected. Orig. art. has: 1 table, 1 figure.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR (Institute of General and Inorganic Chemistry AN SSSR)

SUBMITTED: 19Jun63 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: CH NO REF SOV: 005 OTHER: 003

Card 2/2

USSR / General Problems of Pathology. Tumors. U-4
Neoplasm.

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 03006

Author : Zimina, A. P.
Inst : Gertsen Inst. of Gynecology and Obstetrics
Title : Treatment of Malignant Tumors of the Ovary at the Gertsen Institute of Gynecology and Obstetrics.

Orig Pub : V sb.: Vopr. klinich. i eksperim. onkologii. Vyp. 2, Stalingrad, 1957, 225-232

Abstract : No abstract given.

Card 1/1

ZIMINA, A.P. Cand Med Sci (diss) "Experiment in combined and complex treatment of malignant tumors of the ovaries. According to data of State Oncological Inst im P.A. Gertsen." Mos, 1957 15 pp 20 cm. (State Sci Research Inst Roentgenol and Radiology im V.M. Molotov), 120 copies

(KL, 11-57, 100)

ZIMINA, A.P., Nauchnyy sotrudnik

Treatment of malignant tumors of the ovaries; data from the P.A. Hertsen State Oncological Institute. Vop.onk.1 no.1: 67-73 '55. (MLRA 8:10)

(OVARIES, neoplasms, hosp.statist.)

GUBLER, Ye.V., doktor med.nauk; ZIMINA, E.P.

Changes in energy metabolism in burn disease. Sov.Med. 27 no.7:56-62 Jl '63. (MIRA 16:9)

1. Iz Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova.
(METABOLISM, DISORDERS OF) (BURNS AND SCALDS)

5(2)

05863

AUTHORS: Petrov, D.A., Vlasova, I.V., Zimina, G.V. SOV/78-4-11-16/50

TITLE: The Solubility of Iron- and Calcium Chlorides in Trichlorosilane

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 11, pp 2500-2501 (USSR)

ABSTRACT: The trichlorosilane $SiHCl_3$ produced by chlorinating commercial silicon serves as initial product of semiconductor silicon. The impurities (Ca,Mg,Al,Fe,Cu,Ti,B, etc.) are included in the chlorination. In order to make sure whether it is possible to remove the impurities from the trichlorosilane, the authors investigate the solubility of $FeCl_3$ and $CaCl_2$ in trichlorosilane by means of the radioactive isotopes Fe^{59} and Ca^{45}. Figure 1 shows that $FeCl_3$ is very slowly dissolved in trichlorosilane. Saturation at 18° is attained only after 4 h. The increasing solubility of $FeCl_3$ in trichlorosilane at rising temperature is shown in figure 2.

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0586

The Solubility of Iron- and Calcium Chlorides in Trichlorosilane

SOV/78-4-11-16/50

Analysis has shown only a small degree of solubility at 18°C; it amounts to $1.3.10^{-4}$ g-mol/ℓ for $FeCl_3$ and to less than 4.10^{-6} g-mol/ℓ for $CaCl_2$. The content of $FeCl_3$ is reduced by at least two orders by a single rectification of trichlorosilane saturated with $FeCl_3$. There are 2 figures and 5 references, 4 of which are Soviet.

SUBMITTED: July 10, 1958

Card 2/2

VIASOVA, I.V.; ZIMINA, G.V.; STEPINA, S.B.; MOISEENKOVA, O.P.; PLYUSHCHEV, V.Ye.

Solubility of potassium, rubidium, and cesium bromides in hydrobromic acid. Zhur. neorg. khim. 9 no.8:2040-2041 Ag '64. (MIRA 17:11)

ZIMINA, K.; KORZH, N. (Khar'kov); ALEKHIN, Yu., inz.-khimik (g.Kuybyshev)

Our mail. NTO no.2:62 F '59. (MIRA 12:2)

1. Uchenyy sekretar' TSentral'nogo pravleniya bumazhnoy i derevoobrabatyvayushchey promyshlennosti (for Zimina). 2. Uchenyy sekretar' soveta pervichnoy organizatsii nauchno-tekhnicheskogo obshchestva proyektnogo instituta "Ukrgidep" (for Korzh).

(Research, Industrial)

PROSTAKOV, N.S.; MIKHEYEVA, M.N.; IGUMNOVA, A.V.; ZIMINA, G.I.

Substituted pyridines. 2,5-Dimethyl-4-[m,(o)-tolyl]pyridines and their conversions. Zhur.ob.khim. 30 no.7:2294-2297 Jl '60. (MIRA 13:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii. (Pyridine)

ZIMINA, G.M., inzh.

Conference on the use of ultraviolet radiation for increasing the productivity of poultry and livestock raising. Svetotekhnika 8 no.1:29-30 Ja '62. (MIRA 15:1)
(Poultry breeding--Congresses)
(Domestic animals--Congresses) (Ultraviolet rays--Congresses)

SHELKOVA, O. P., kand. tekhn. nauk; ZIMINA, G. M., inzh.;
PERRASE, M. I., inzh.; RYMOV, A. I., inzh.

Features of using PRK-2 and EUV-15 lamps as standards. Svetotekhnika 9 no.3:11-16 Mr '63. (MIRA 16:4)

1. Institut biologicheskoy fiziki AN SSSR i Vsesoyuznyy svetotekhnicheskiy institut.

(Ultraviolet rays) (Electric lamps)

PLYUSHCHEV, V. Ye.; STEPINA, S.D.; ZIMINA, G.V.; ZHILYAKOV, V.G.

Investigating the interaction of antimony chloride and bromide with corresponding halides close to the properties of alkali elements. Izv. vys. ucheb. zav.; tsvet. met. 7 no. 4:112-116 '64 (MIRA 19:1)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii, kafedra khimii i tekhnologii redkikh i rasseyannykh elementov.

ZIMINA, G.V.; PLYUSHCHEV, V.Ye.; STEPINA, S.B.

Interaction of antimony (III) chlorides and bromides with alkaline elements with closely related properties in solutions of corresponding halogen acids. Dokl. AN SSSR 163 no.4:887-890 Ag '65. (MIRA 18:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova. Submitted January 15, 1965.

VLASOVA, I.V.; DENISOV, A.F.; ZIMINA, G.V.; MARUNINA, N.I.; NALIMOV, V.V.; SUKHOV, G.V.

Application of consecutive analysis to radiometric measurements. Zav.lab. 27 no.10:1261-1264 '61. (MIRA 14:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti.
(Radioisotopes)

Zinina, O. N.

The hydrochemical and hydrobiological regime of lakes in the first and second [illegible] terraces of the Volga River and [illegible]

ZIMINA, I. V.

ZIMINA, I. V.--"Materials and History of the Development of Hospital Service in Rostov-on-Don. " *(Dissertation for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions.) Rostov-on-Don State Medical Inst, Rostov-on-Don

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Doctor of Medical Sciences

ZIMINA, K.I.; MASHIREVA, L.G.

Spectrum method of determining barium and calcium in lubricants with additives. Trudy VNII NP no.7:302-308 '58.
(MIRA 12:10)

(Lubrication and lubricants--Additives)
(Barium--Spectra) (Calcium--Spectra)

USSR/ Chemistry - Spectroscopy

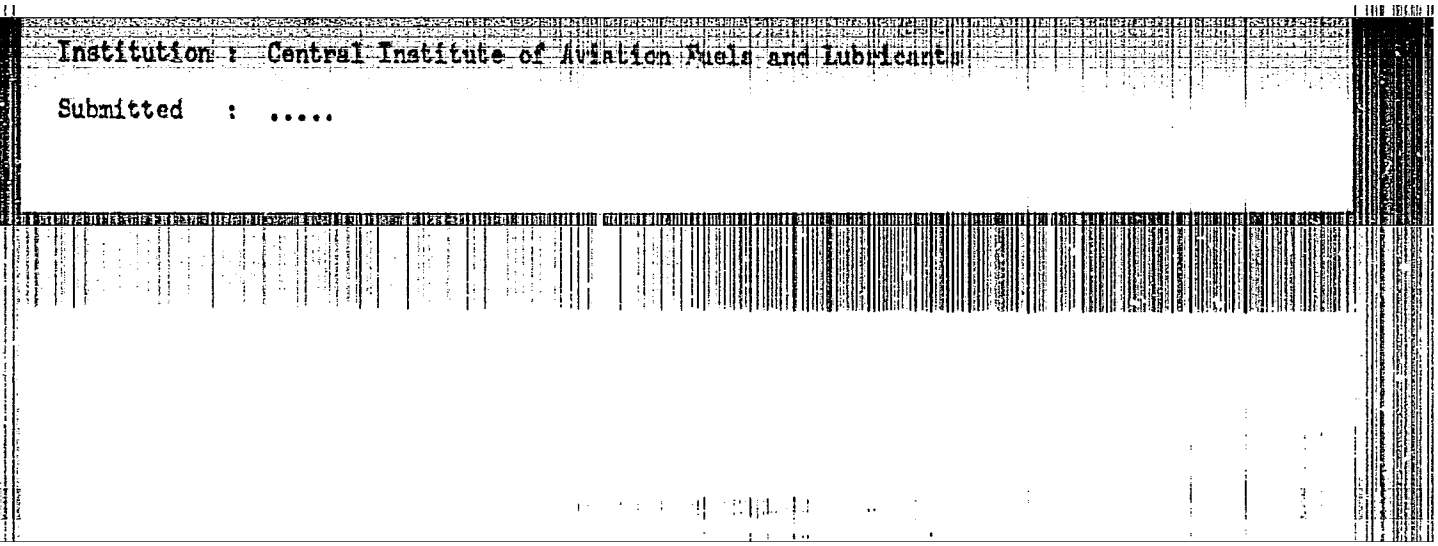
Card 1/1 Pub. 43 - 37/62

Authors : Zimina, K. I.; Ioganson, A. V.; and Siryuk, A. G.

Title : Application of infrared spectroscopy to the study of petroleum products

Periodical : Izv. AN SSSR. Ser. fiz. 18/6, page 707, Nov-Dec 1954

Abstract : Experiments were conducted to determine the applicability of the group structural analysis according to infrared absorption spectra to the study of gaso-



Zimina, K.I.

USSR/ Analytical Chemistry - General Questions G-1

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12023

Author : Zimina K.I., Polyakova A.A., Sosina N.S.
Title : Analysis of Hydrocarbon Systems According to Mass Spectra

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 6, 1264-1270

Abstract : Description of the results of the use of mass-spectrometer for the development of a method of analysis of mixture of isomeric hydrocarbons. MS-1 mass-spectrometer has been improved in design: provided with automatic resolution of mass-spectrum, electronic potentiometer and a system for feeding the sample under study into the apparatus. A diagram is presented showing the principle of operation of the mass-spectrometer, and a diagram of the feeding system. A description is given of the principle of operation of the apparatus and of the method of calculating the composition of mixtures on the basis of mass-spectra. Recordings were

Card 1/2

NIKOLAYEVA, V.G.; ZIMINA, K.I.; POLYAKOVA, A.A.

Analysis of the composition of gasoline produced from Zhirnovskaia petroleum. Khim.i tekh.topl.no.2:23-26 F '56. (MIRA 9:9)
(Gasoline--Analysis) (Zhirnovskaia--Petroleum products)

Zimina, K.I

USSR/ Analytical Chemistry - General Questions C-1

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12024

Author : Zimina K.I., Polyakova A.A., Tikhomirov M.V., Sosina N.S.
Title : Mass-Spectrometric Analysis of Mixtures of Gaseous Hydrocarbons

Orig Pub : Khimiya i tekhnol. topliva, 1956, No 10, 37-44.

Abstract : See preceding abstract.

Card 1/1

SOV/65-58-8-7/14

AUTHORS: Zimina, K. I. and Mashireva, L. G.

TITLE: A Spectral Method for Determining Barium in Oils Containing Additives. (Spektral'nyy metod opredeleniya bariya v maslakh s prisadkami).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.8. pp. 34 - 38. (USSR).

ABSTRACT: During recent years multi-functional additives to motor oils have found wide application, especially additives containing barium. The necessity for determining the concentration of the additive under various circumstances is discussed. The described spectral method makes it possible to analyse the oil more accurately. The method is designed for fresh and used diesel oils containing 1 - 4% of an additive which equals 0.03 - 0.2% barium. The tests were carried out on a quartz spectrograph ISP-22. The spectral source was an arc of alternating current from the generator PS-9 with 6 mm diameter carbon electrodes. Special attention was paid to the introduction of the test sample into the arc as excess heating of the electrodes causes burning of the oil and leads to incorrect results. The method of Kelkins et al. (Ref.1) was employed. Seven samples from the Novokuybyshevsk plant were tested. The concentration

Card 1/2

A Spectral Method for Determining Barium in Oils Containing Additives.

of the barium varied between 0.03 to 0.2%. The time needed for carrying out one experiment was 6 hours; at simultaneous analysis of a larger number of samples the required time could be shortened (40 samples in 35 hours). Results of analyses of oils containing the additives are given in a Table on page 37. The testing time can be further reduced by burning the samples in an atmosphere of nitrogen (2 - 3 hours). There is 1 Figure, 1 Table and 4 References: 1 English and 3 Soviet.

ASSOCIATION: VNII NP

1. Lubricant additives--Effectiveness 2. Barium--Determination
3. Lubricating oils---Spectrographic analysis

Card 2/2

ZIMINA, K.I.; POLYAKOVA, A.A.

Analysis of hydrocarbon systems from mass spectra. Itogi nauki: Khim.nauki 4:208-218 '59. (MIRA 13:4)
(Hydrocarbons--Spectra) (Mass spectrometry)

S/079/60/030/04/47/080
B001/B002

AUTHORS: Zimina, K. I., Polikova, A. A., Khmel'nitskiy, R. A., Obolentsev, R. D.

TITLE: Mass-spectrometric Investigation of Some Homologs of Thiophane

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1264-1268

TEXT: Only a small number of reports on the mass spectra of sulfur compounds had been hitherto published. Detailed investigations were only carried out with respect to a series of thiophenes, whose spectroscopic data were, as expected, similar to those of alkyl benzenes (Ref. 2). In the present paper the results of mass-spectrometric investigations of homologous α-alkylthiophanes exhibiting radicals of normal structure (C_1 - C_6) were described. The spectrometric investigation by means of the already earlier (Ref. 3) modified mass spectrometer MC-1 (MS-1) is described in detail. The distribution of the mass intensities in the spectra, the values of the relative sensitivity, and the dependence of these values on

Card 1/2

Mass-spectrometric Investigation of Some Homologs of Thiophane

S/079/60/030/04/47/080
B001/B002

the molecular weight were determined. The complete ionization was computed. It was shown that an identification of the structures, and a qualitative analysis of α-alkylthiophane mixtures is possible. The accuracy of the quantitative analysis of the mixtures is relatively 10 - 15%. The data given, are partly provided by the Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti (All-Union Scientific Research Institute of Petroleum Industry). There are 3 figures, 2 tables, and 5 references, 1 of which are Soviet.

SUBMITTED: March 28, 1959

Card 2/2

SIRYUK, A.G.; ZIMINA, K.I.

Particular features of the ultraviolet spectra of certain types of aromatic hydrocarbons. Khim.i tekh.topl.i masel 7 no.5:23-26 My '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrocarbons--Spectra)

SIMEONOV, A.A.; TIKHOMIROV, M.V.; ZIMINA, K.I.

Thermal-diffusion separation of hydrocarbons. Neftepер. i neftekhim. no.7:25-31 '63 (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti.

L 29560-66 EWP(j)/EWT(m)/T(A) RM/DJ
ACC NR: AP6003435 SOURCE CODE: UR/0065/66/000/001/0054/0057

AUTHOR: Zimina, K. I.; Kotova, G. G.; Sher, V. V.; Kuz'mina, G. N.; Sanin, P. I.

ORG: VNII NP

TITLE: Determination and characteristics of zinc dialkyldithiophosphate-type additives based on infrared absorption spectra

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 1, 1966, 54-57

TOPIC TAGS: lubricant additive, zinc compound, phosphorus compound, sulfur compound, IR spectrum

ABSTRACT: Infrared absorption spectra of motor oil additives based on zinc dialkyldithiophosphates were studied in the 400-700 cm^{-1} range. The alkyl radicals of zinc dialkyldithiophosphates (general formula $(RO)_2P(S)SZnS(S)P(OR')_2$) contained isopropyl, isobutyl, n-butyl, isoamyl, 2-ethylhexyl, sec-heptyl, and higher radicals. It was found that the additives contain basic salts in addition to neutral zinc salts of dialkyldithiophosphates, and that the absorption band with a maximum at 480 cm^{-1} is due to stretching vibrations of the Zn-O bond in such basic salts. The

Card 1/2 UDC: 543.544 : 546.47

L 29560-66
ACC NR: AP6003435

presence of the latter has no adverse effect on the quality of the additives. A study of the P-S band of zinc dialkyldithiophosphates showed that if the extinction coefficients of two dialkyldithiophosphates and the molecular mass of one of them are known, the molecular mass and hence the average number of carbon atoms present in the alkyl groups of the second dialkyldithiophosphate can be determined. Orig. art. has: 5 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 000

Card 2/2

L 38775-66 EWT(m)/T DJ/WE

ACC NR: AP6023551 SOURCE CODE: UR/0318/66/000/006/0012/0016

AUTHOR: Simeonov, A. A.; Zimina, K. I.

44
B

ORG: VNIINP

TITLE: Study of the properties of fractions resulting from the separation by thermal diffusion of the paraffin-naphthene portion of a distillate of Anastas'yevskaya crude

SOURCE: Neftepererabotka i neftekhimiya, no. 6, 1966, 12-16

TOPIC TAGS: lubricating oil, thermal diffusion, lubricant refining, chromatography

ABSTRACT: An experiment has shown that thermal diffusion can be used to separate from oil cuts boiling in the requisite range a relatively large fraction exhibiting low viscosity, a high viscosity index, and the requisite low volatility. Because it combines these properties, this product would be an excellent base fluid for all-season thickened motor oils. The experiment in question involved the separation of a crude oil distillate boiling at 200—430C by silica gel chromatography, urea dewaxing, rectification, and thermal diffusion into 50 fractions. For each of these fractions the refractive index, density, molecular weight, elemental composition, and kinematic viscosity and viscosity index were determined. Orig. art. has: 2 figures and 5 tables. [SM]

SUB CODE: 07, 11/ SUBM DATE: none/ ORIG REF: 004

Card 1/1 UDC: 665.637.55—4.001.5:547.2

SIRYUK, A.G.; ZIMINA, K.I.

Spectral-chromatographic determination of hydrocarbons with condensed aromatic rings in petroleum products. Neftekhimia 4 no.3:501-506 My-Je '64. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti.

POPOVA, T.I.; POLYAKOVA, A.A.; ZIMINA, K.I.

Mass spectrometric analysis of complex alcohol mixtures. Khim. i tekh. topl. i masel 10 no.2:48-52 F '65.

(MIRA 18:8)

BOLOTOVA, G.I.; KOTOVA, G.G.; ZEMINA, K.I.; ISAGULYANTS, V.I.

Synthesis of the homologous series of individual potassium dialkyl- and diaryldithiophosphates and the study of their structure by infrared spectroscopy. Zhur. prikl. khim. 38 no.7:1580-1585 Jl '65. (MIRA 18:7)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni Gubkina.

TAL'ROZE, V.L.; ZIMINA, K.I.; POLYAKOVA, A.A.; TANTSYREV, G.D.

Mass spectrum analysis of mixtures of organic substances.
Trudy Kom.anal.khim. 13:456-474 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Organic compounds) (Mass spectrometry)

POLYAKOVA, A.A.; ZIMINA, K.I.; KHMEL'NITSKIY, R.A.

Mass spectrometric analysis of complex mixtures of hydrocarbons. Trudy Kom.anal.khim. 13:495-502 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrocarbons) (Mass spectrometry)

POPOVA, T.I.; POLYAKOVA, A.A.; ZIMINA, K.I.

Mass spectroscopic analysis of alcohols. Trudy Kom.anal.khim. 13:490-495 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Alcohols) (Mass spectrometry)

SIRYUK, A.G., ZIMINA, K.I.

Quantitative determination of polycyclic aromatic hydrocarbons.
Trudy Kom.anal.khim. 13:359-366 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrocarbons) (Cyclic compounds--Absorption spectra)

KUSAKOV, M.M.; SHIMANKO, N.A.; SHISHKINA, M.V.; ZIMINA, K.I.; SIRYUK, A.G.

Ultraviolet absorption spectra of aromatic hydrocarbons. Izv. AN SSSR. Ser.fiz. 26 no.10:1249-1252 O '62. (MIRA 15:10)
(Hydrocarbons—Spectra)

PAUSHKIN, Ya.M.; VISHNYAKOVA, T.P.; SOKOLINSKAYA, T.A.; ZIMINA, K.I.; KOTOVA, G.G.

Alkylation of ferrocene by olefins in the presence of the compounds of boron fluoride and aluminum chloride. Neftekhimiia 3 no.2: 280-284 Mr-Ap '63. (MIRA 16:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni I.M.Gubkina.
(Ferrocene) (Olefins) (Catalysts)

L 16996-63 EWP(1)/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pe-4/Pr-4

S/204/63/003/002/006/006

AUTHOR: Paushkin, Ya. M., Vishnyakova, T. P., Sokolinskaya, T. A., Zimina, [illegible]

TITLE: Alkylation of Ferrocene by olefins in the presence of the compounds boron fluoride and aluminum chloride

PERIODICAL: Neftekhimiya, v. 3, no. 2, 1963, 280-284

TEXT: The number of olefins used for alkylation of ferrocene was expanded, and such catalysts as the strong complex acid $H_3PO_4 \cdot BF_3$ and $BF_3 \cdot O$ [illegible], in addition to $AlCl_3$, were used, which allowed the concept on the mechanisms of ferrocene alkylation to be widened and new previously unknown

S/048/62/026/010/005/013
B117/B186

AUTHORS: Kusakov, M. M., Shimanko, N. A., Shishkina, M. V., Zimina, K. I., and Siryuk, A. G.

TITLE: Ultraviolet absorption spectra of aromatics

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 10, 1962, 1249-1252

TEXT: This paper deals with the rules governing the effect of saturated substituting groups on the absorption spectra of a number of mono- and bicyclic aromatics. It has been found that, according to the number and position of substitutes, the absorption spectrum of alkyl benzenes is shifted towards the long-wave region, and the absorption intensity maxima are intensified. In the case of cycloalkyl benzenes (naphthene-aromatic hydrocarbons) with a similar spectrum this shift is related to the substitution of cyclopentyl groups for the alkyl groups. The structure of indanes (hydrindenes), which show absorption spectra and which absorb [illegible] times more strongly than benzene, can be determined by comparing their [illegible] substituted benzenes and simple

S/048/62/026/010/005/013
B117/B186

(tetralines) follow the same laws as alkyl benzenes, cycloalkyl benzenes, and indanes. Diphenyls and benzenes have different spectra. Most m- and p-substituted diphenyl homologs are characterized by strong absorption and by the absence of a fine structure in the bands. The spectra of ortho-substituted diphenyl are subject to considerable changes. Diphenyl alkanes and alkyl diphenyl alkanes: The absorption spectra of several diphenyl methanes are similar to those of benzene. The spectra of aromatics with condensed rings show a specific character. Naphthalene has an absorption spectrum covering the range 2100-3300 Å and is characteristic of all naphthalene homologs. As the absorption spectra characteristic of polycyclic aromatics are hardly affected by substituting groups these are suitable for analytical purposes. An atlas (M. M. Kusakov, N. A. Shimanko, M. V. Shishkina, Ul'travioletovyye spektry pogloshcheniya aromaticheskikh uglevodorodov (Ultraviolet absorption spectra of aromatics), Izd. AN SSSR, M., 1962) was compiled for the practical application of ultraviolet spectroscopy. The ultraviolet spectra of mono- and bicyclic aromatics, graphically represented on the same scale and in terms of $\varepsilon = f(\lambda)$ or $\log\varepsilon = f(\lambda)$, were partly recorded by the present authors and partly taken from publications (American Petroleum Institute Research Project 44, Ultraviolet Spectral Data, 1958).

KHMEL'NITSKIY, R.A.; ZIMINA, K.I.; POLYAKOVA, A.A.

Mass spectrum analysis of gasolines. Khim.i tekh.topl.i masel 6 no.6:55- 60 Je '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Gasoline—Spectra)

31545
S/081/61/000/022/001/076
B102/B108

53620 1220

AUTHORS: Zimina, K. I., Obolentsev, R. D., Polyakova, A. A., Khmel'nitskiy, R. A.

TITLE: Mass spectra of some homologs of thiophane

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 12-13, abstract 22B72 (Sb. "Khimiya sera-i azotorgan. soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh", Ufa, v. 3, 1960, 81-92

TEXT: The mass spectra of α-alkyl thiophanes with radicals of normal structure from C_1 to C_6 were studied by means of an MC-1 (MS-1) mass spectrometer. Total ionization caused by 70-ev electrons was studied as dependent on the molecular weight of the substance investigated: It is shown that the total quantity of molecules and fragmentary ions increases linearly with increasing molecular weight. The total ionization value measured for thiophenes makes it possible to carry out an analysis of the structural groups of heterocyclic compounds. The ionization potentials of thiophanes were determined approximately. They were found to decrease

Card 1/2

Mass spectra of some homologs ...

(from 9.5 ev for C_1 to 8 ev for C_6) with increasing length of the chain of the alkyl radical. The mass spectra of the alkyl thiophanes were all characterized by the presence of an intense peak at the mass 87 which permits identifying these compounds. [Abstracter's note: Complete translation.]

Card 2/2

POLYAKOVA, A.A.; ZIMINA, K.I.; PETROV, A.A.; KHMEL'NITSKIY, R.A.

Mass-spectra and structure of organic compounds. Part 5: Mass-spectra of enyne hydrocarbons with a tertiary butyl radical at multiple bonds. Izv. vys. ucheb. zav.; khim. i khim. tekh. 4 no. 2:321-324 '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pereabotke nefti i gaza i Leningradskiy tekhnologicheskiy institut im. Lensoveta. Kafedra organicheskoy khimii.
(Hydrocarbons—Spectra)

ZIMINA, K.I.; OBOLENTSEV, R.D.; POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.

Mass-spectra of some thiophane homologs. Khim.nera i azotorg.soed. sod. v neft.i neftëprod. 3:81-92 '60. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Thiophene--Spectra)

SIRYUK, A.G.; ZIMINA, K.I.

Quantitative determination of some aromatic hydrocarbons from their ultraviolet absorption spectra. Khim.i tekh.topl.i masel 8 no.2: 52-56 F '63. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

MASHIREVA, L.G.; ZIMINA, K.I.

Spectrographic determination of vanadium in fuel oils. Khim.i tekh. topl.i masel 6 no.2:57-59 F '61. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo topliva.
(Vanadium--Spectra) (Petroleum as fuel)

ZIMINA, K.I., red.

[Applied mass spectrometry; report of a conference organized by the Mass-Spectrometry Panel of the Institute of Petroleum and held in London, October 29-31, 1953] Prikladnaia mass-spektrometriia; doklady na konferentsii po mass-spektrometrii, organizovannoi Institutom nefti 29-31 okt. 1953 g. v Londone. Moskva, Gostoptekhizdat, 1958. 285 p. Translated from the English. (MIRA 14:4)

1. Institute of Petroleum, London.
(Mass spectrometry) (Hydrocarbons)

S/065/60/000/010/010/010
E030/E412

AUTHORS: Mashireva, L.G. and Zimina, K.I.

TITLE: Spectrographic Determination of Small Quantities of Metals in Fuels

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.10, pp.62-63

TEXT: An ultraviolet emission method has been developed for determining small quantities of metals in fuels, which does not involve ashing the specimen. The smallest weight percentages which have been determined are: vanadium 5×10^{-5}; molybdenum 2×10^{-4}; cobalt 2×10^{-4} and sodium 3×10^{-4}. The sensitivity of the method could be increased by fifty to one hundred times, if required, by distilling off the light ends of a specimen, which does not incur the possible loss of metals inherent in ashing. Both carbon electrodes are saturated with the fuel specimen and then heated for 20 to 40 minutes in a muffle at 200 to 300°C. The electrodes are of graphite, 5 to 6 cm long and 6 mm in diameter, with plane ends. For calibration, a drop of

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S/065/60/000/010/010/010
E030/E412

Spectrographic Determination of Small Quantities of Metals in Fuels

lithium acetate solution, containing 1.4% lithium, is added and takes 2 to 5 minutes to soak into the electrode. An ИСП-28 (ISP-28) spectrograph was used with a 0.0135 mm slit width: the arc current was 8 A. The complete determination of five elements takes 1.5 to 2 hours per sample. Elements such as sodium, which have weak lines in the ultraviolet, require a lower current, around 5 A, and several electrodes are exposed in succession. For fifteen specimens, the sodium content can be determined in 3 hours, taking 4 minutes per specimen, and using two sets of electrodes. For specimens with small iron content, the molybdenum is straightforward but at higher iron content the iron lines blacken the main molybdenum lines too much and one must use weaker molybdenum lines, free from surrounding iron lines. There are 1 table and 3 Soviet references.

Card 2/2

DOLGOBORODOV, I.V., zasluzhennyy zootekhnik RSFSR; ZIMINA, K.I.; PISKAREV, A.G.; YAKOVLEV, F.A.; BOLOKOV, G.N., red.; BARANOVA, L.G., tekhn.red.

[Brief manual on dairy cattle raising] Kratkii spravochnik po molochnomu zhivotnovodstvu. Leningrad, Gos.izd-vo sel'khoz. lit-ry, 1960. 295 p. (MIRA 14:2)
(Dairy cattle)

LYAMIN, V.A.; ZIMINA, K.I.

Drying of hydrolytic lignin in the LTA three-drum drier.
Gidroliz.i lesokhim.prom. 13 no.6:13-14 '60. (MIRA 13:9)

1. Leningradskaya lesotekhnicheskaya akademiya.
(Lignin—Drying) (Drying apparatus)

S/079/60/030/009/018/022/XX
B001/B066

AUTHORS: Polyakova, A. A., Zimina, K. I., Petrov, A. A., and Khmel'nitskiy, R. A.

TITLE: Mass Spectra and Structure of Some Allene Hydrocarbons

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 9, pp. 2977 - 2983

TEXT: Following the articles of Refs. 1 - 3 on the interaction of molecules of unsaturated compounds with electrons and on the correlation between their structure and their mass spectra, the authors investigated the mass spectra of some allenes (2,3- and 3,4-dienes) on a MC-1 (MS-1) mass spectrograph in order to determine the effect of the position of the double bonds upon the main formation of these or those ions in the electron collision, as well as to compare these data with the characteristic mass spectroscopic properties of other hydrocarbons. Ions formed by cleavage of the C-C bonds

Card 1/3

Mass Spectra and Structure of Some Allene Hydrocarbons

S/079/60/030/009/018/022/XX
B001/B066

predominate in the mass spectra of the allenes. Ions formed by dissociation of the C - H bonds are less intense. There are two maxima for the ions $C_3H_x^+$ and $C_5H_x^+$ on the distribution curve of ion intensities in allenes, like in the 1,3-dienes. In addition to the general rules mentioned, the mass spectra of two allene types (2,3- and 3,4 dienes) are characterized by some peculiarities which are dependent on the structure. The mass spectra of six allene hydrocarbons are described: octadiene-2,3, octadiene-3,4, 7-methyl octadiene-2,3, 7-methyl octadiene 3,4, 7,7-dimethyl octadiene-3,4, and decadiene-3,4. In the spectra of all 3,4-dienes, except 7,7-dimethyl octadiene-3,4, the peak 67 of the mass shows the maximum intensity, and in the spectra of the 2,3-dienes, the peak 68 of the mass. In the case of 7,7-dimethyl octadiene, the peak assigned to the ion $C_4H_9^+$ shows the maximum intensity. The second maximum corresponds in all cases to the ions $C_3H_x^+$. An attempt is made to explain the origin of the most intense ions with respect to their structure. To confirm the formation

Card 2/3

mechanism assumed for the split ions, the ionization curves and potentials were investigated. Sensitivity and complete ionization of all allenes studied were determined, and the degree of ionization was found to be dependent on the hydrocarbon structure. There are 3 figures, 2 tables, and 9 references: 5 Soviet and 4 US.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza
Leningradskiy tekhnologicheskiy institut imeni Lensoveta
(All-Union Scientific Research Institute for the Processing of Oil and Gas)
(Leningrad Technological Institute imeni Lensovet)

SUBMITTED: September 12, 1959

84688

S/020/60/134/004/013/023
B016/B060

53700 2209, 1290, 1273 only

AUTHORS: Polyakova, A. A., Zimina, K. I., Petrov, A. A., and Khmel'nitskiy, R. A.

TITLE: Mass Spectra and Structure of Silicon-containing Vinyl Acetylenes

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4, pp. 833 - 835

TEXT: The authors have previously proved (Ref. 1), by studying mass spectra of vinyl acetylene and its analogs, the interdependence between the intensities of the molecular ion and some split-off ions, on the one hand, and the structure of the hydrocarbons, on the other. The present work was conducted to examine the mass spectra of four enin-silicon hydrocarbons: 1-trimethyl-silyl-buten-3-ine-1 (I), 1-trimethyl-silyl-3-methyl-buten-3-ine-1 (II), 1-trimethyl-silyl-penten-3-ine-1 (III), and 1-triethyl-silyl-buten-3-ine-1 (IV). In contrast with vinyl acetylene hydrocarbons, the process of dissociative ionization of their silicon-containing derivatives is exclusively selective (Table 1). Under the action of an electronic impact, the molecule

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Card 1/3

of (I) mainly undergoes the dissociation of a single methyl radical. While the molecular ion with mass 124 has the highest intensity, 48% of the total ion current falls to the ion with mass 109. The further dissociation gives rise to silicon-containing ions with masses 93, 83, 81, 79, 69, 55, and intensities from 3 to 15%. This dissociation takes place by the successive splitting off of CH-, CH_2-, or CH_3 groups. There can be no doubt about the presence of silicon in these ions. The dissociation of the two closest--related homologs of (I), namely, (II) and (III), proceeds along a similar pattern. In both these homologs, the most resistant ions were found to be those with mass 123 which result from the splitting of the methyl radical from the molecular ion. In the case of (II) and (III), the further dissociation is even less distinctly marked than in the case of (I). 68 - 71% of the total intensity of ions falls to ions with mass 123. $(CH_3)_3Si^+$ ions with mass 73 are the most intensive in the spectrum of the saturated analog of (I), viz., trimethyl butyl silane. The splitting-off of methyl groups takes place to a much lower extent. The ions representing this direction of dissociation in the spectrum are $(CH_3)_2$ Si^+H ions with mass 59. The remaining ions in the spectrum of trimethyl butyl silane have a very low

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Mass Spectra and Structure of Silicon-
-containing Vinyl Acetylenes

S/020/60/134/004/013/023
B016/B060

intensity. The mass spectrum of (IV) is characterized by a more intensive dissociation process of the molecular ion. As may be seen from the schemes, the initial stage of dissociation of all silicon-containing vinyl acetylenes is the same in that the alkyl radical is split off from the silicon atom. Moreover, in the case of (IV), ethylene molecules are split off in succession. A comparison between mass spectra of enin hydrocarbons and those of their silicon-containing analogs produces analogies and differences which are closely related to the substitution of carbon by silicon. The authors thank M. D. Stadnichuk for having prepared the compounds (I) to (IV). The investigation was conducted with the aid of the apparatus MC-1 (MS-1) improved according to earlier descriptions. There are 1 table and 6 references: 5 Soviet and 1 US.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-Union Scientific Research Institute for the Processing of Petroleum and Gas and for the Production of Synthetic Liquid Fuels)

PRESENTED: June 6, 1960, by B. A. Arbuzov, Academician

SUBMITTED: May 20, 1960

Card 3/3

S/065/63/000/002/006/008
E075/E436

AUTHORS: Siryuk, A.G., Zimina, K.I.

TITLE: Quantitative determination of some aromatic hydrocarbons by ultraviolet absorption spectra

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.2, 1963, 52-56

TEXT: Naphthalene, phenanthrene and anthracene structural groups were determined in petroleum vacuum distillates boiling up to 350 to 400°C by ultraviolet spectroscopy. The concentration of the analyzed structural groups C_{str} in a given oil is determined from its specific extinction coefficient. For an oil containing naphthalene, phenanthrene and anthracene hydrocarbons the specific extinction coefficient is given by $k = K_n \cdot C_{an} + K_{ph} \cdot C_{aph} + K_a \cdot C_{aa}$ where C_{an}, C_{aph} and C_{aa} are the weight percents of naphthalene, phenanthrene and anthracene structural groups in the oil, and K_{ij} - the extinction coefficient of a structural group for wavelength λ_j. The absorption bands chosen were: 225 to 230 mμ for naphthalenes, 225 mμ for phonanthrenes and 375 mμ for anthracenes. The content of each aromatic hydrocarbon in an oil product can be thus approximately calculated if its mean molecular

Card 1/2

Quantitative determination ...

weight is known. The method is unsuitable for the determination of benzene rings (mono-aromatics). The most accurate results are obtained for complex mixtures such as lubricating oils. Tetracyclic aromatics interfere in the determination, but little interference is caused by sulfides, thiophenes, mercaptans, disulfides and thioindanes. It is expected that benzothiophenes will interfere. The method requires only 0.1 g of sample and the analysis can be completed in 30 minutes. There are 3 tables.

ASSOCIATION: VNII NP

ZIMINA, K.I.; VOROB'YEV, G.G.; ORLOVA, M.I.

Spectrum analysis of the ash of spent motor oils, scale, and deposits. Khim.i tekh.topl.i masel 5 no.5:50-56 My '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Lubrication and lubricants--Analysis)

TARASOV, Aleksey Issarionovich. Prinimali uchastiye: KUZ'MINA, A.V.; ZIMINA, K.I.; POLYAKOVA, A.A.; IOGANSEN, A.V.; FROLOVSKIY, P.A.; LULOVA, N.I.; L'VOVA, L.A., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Gases obtained in petroleum refining and methods of their analysis] Gazy neftepererabotki i metody ikh analiza. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 222 p. (MIRA 13:2)
(Petroleum--Refining) (Gases--Analysis)

SOV/81-59-15-54914

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 15, p 432 (USSR)

AUTHORS: Zimina, K.I., Mashireva, L.G.

TITLE: The Spectral Method for Determining Barium and Calcium in Oils With Admixtures

PERIODICAL: Tr. Vses. n.-i. in-t po pererabotke nefti i gaza i polucheniyu iskusstv. zhidk. topliva, 1958, Nr 7, pp 302 - 308

ABSTRACT: Spectral methods have been developed for the quantitative determination of Ba and Ca in fresh and used diesel oils with admixtures without preliminary ashing of the oil. The time needed for one analysis is 6 hours and less. For conducting experiments, the method of impregnation by a sample of incandescent carbon electrodes was used. The comparison of the results obtained with the spectrograph ISP-22 and by the chemical method has shown a good agreement, the root-mean-square error amounting to 4 relative %. There are 4 references.

G. Margolina

Card 1/1

SOV/20-127-2-42/70

5(4)
AUTHORS: Polyakova, A. A., Zimina, K. I., Petrov, A. A., Khmel'nitskiy, R. A.

TITLE: Mass Spectra and Structure of Vinyl Acetylene Hydrocarbons

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 2, pp 386-388 (USSR)

ABSTRACT: Investigations of relations existing between physical properties influencing structure and reactivity supply data for infrared spectra (Ref 2), Raman spectra (Ref 3), and dipole moments (Ref 4). Results obtained from investigations with the MS-1 mass spectrograph are reported here. The mass spectra of vinyl acetyl and of its three monomethyl derivatives were taken. Results are specified in table 1. Maximum intensity is exhibited by the molecular ion. The most intense split ions are produced by the rupture of the C-H bond. Split ions produced by the rupture of the C-C bond are not typical of these compounds. Unlike piperylene and isoprene, the introduction of a methyl radical decreases but little the stability of the molecular ion. The normal chain isomers differ from isopropyl acetylene by a greater intensity of the peak 63 ($C_5H_3^+$-Ion) .

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A striking fact is that the greatest stability is exhibited by those split ions which have conjugate bonds. It would be interesting to compare these properties with data concerning the kinetics of the ion reactions of vinyl acetylenes. Unfortunately, there are no such data available in publications. There are 1 table and 6 references, 5 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-Union Scientific Research Institute for Petroleum and Gas Refining and Production of Synthetic Liquid Fuels)

PRESENTED: March 26, 1959, by B. A. Arbuzov, Academician

SUBMITTED: March 21, 1959

ZIMINA, K.I.; MASHIKEVA, L.G.

Determination of barium in motor oils with additives. Fiz. sbor. no.4:507-510 '58. (MIRA 12:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza.
(Barium--Spectra) (Lubrication and lubricants--Additives)

Zimina, K.I.

24(7) PHASE I BOOK EXPLOITATION SOV/1700

Leningrad. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956.
[Materials of the 10th All-Union Conference on Spectroscopy] Vol 2: Atomic Spectroscopy. Leningrad, 1958. 568 p. (Series: Its: Trudy) Izd-vo Leningradskogo univ., 3,000 copies printed.
Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); A.N. Terenin, Doctor of Physical and Mathematical Sciences; A.P. Shcheglinskiy, Doctor of Physical and Mathematical Sciences; I.I. Shabalkin, Candidate of Technical Sciences; S.M. Ryavkin, V.A. Fabrikant, Candidate of Technical Sciences; L.M. Klimovskaya, V.O. Kiritskiy, Candidate of Technical Sciences; L.K. Iliyanenok, Candidate of Physical and Mathematical Sciences; V.S. Iliyanenok, (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Glauberman, Doctor of Physical and Mathematical Sciences; M.I. G.L. Gaisarj, Tech. Ed.: Z.V. Baranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectral analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectroscopy presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, quantitative spectrum and minerals, photographic methods for determination of the analysis of metals and alloys, spectral tables, and hydrogen content of metals by means of isotopes, analysis, aliases of spectral lines, spark spectrographic method of calibration statistical study of variation in the parameters of analysis in survey, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

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(Cont.) SOV/1700

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Card 26/31

ZIMINA, K. I.

PRIKHOT'KO, A.F.

24(7) p-3 PHASE I BOOK EXPLOITATION SOV/1365

L'vov. Universytet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Pikychnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

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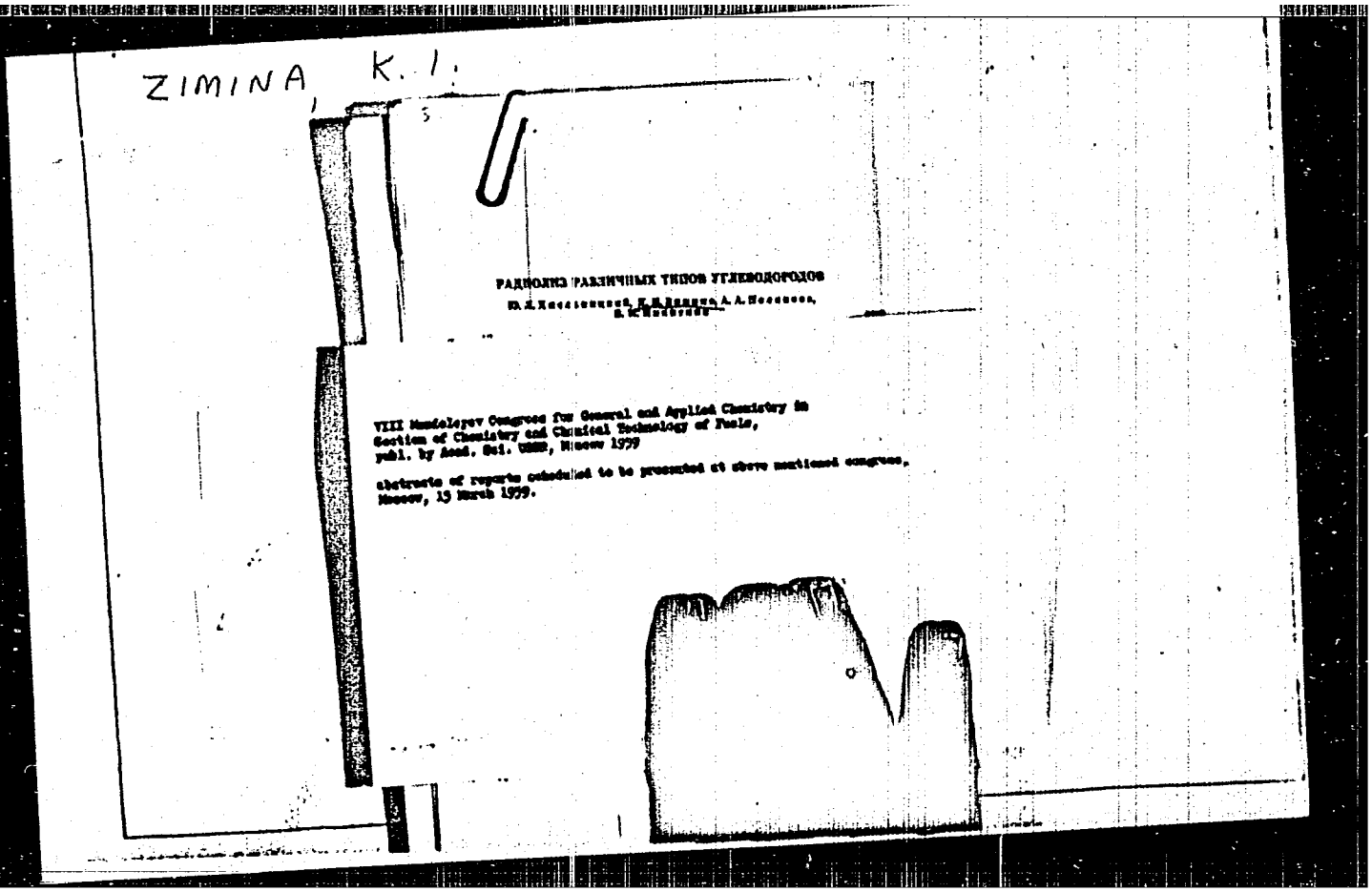

ZIMINA, K. I.

РАДИОЛИЗ РАЗЛИЧНЫХ ТИПОВ УГЛЕВОДОРОДОВ

[illegible]

VIII Mendeleyev Congress for General and Applied Chemistry in
Section of Chemistry and Chemical Technology of Fuels,
publ. by Acad. Sci. USSR, Moscow 1959

abstracts of reports scheduled to be presented at above mentioned congress,
Moscow, 19 March 1959.

ZIMINA, K. I.

МАСС-СПЕКТРОМЕТРИЧЕСКИЙ МЕТОД
ОПРЕДЕЛЕНИЯ СТРУКТУРНО-ГРУППОВОГО СОСТАВА
БЕНЗИНОВ

А. А. Полякова, К. И. Зимина, Р. А. Хмельницкий

VIII Mendeleyev Congress for General and Applied Chemistry
Section of Chemistry and Chemical Technology of Fuels,
publ. by Acad. Sci. USSR, Moscow 1959

Abstracts of reports scheduled to be presented at above mentioned congress,
Moscow, 15 March 1959.

39827
S/081/62/000/011/019/057
E075/E136

11.9000

AUTHORS: Mashireva, L.G., and Zimina, K.I.

TITLE: Direct spectrographic determination of metals and phosphorus in oils with additives

PERIODICAL: Referativnyy zhurnal, Khimiya, no.11, 1962, 151,152, abstract 11 D158. (Novosti neft. i gaz. tekhn. Neftepererabotka i neftekhimiya, no.8, 1961, 15-18).

TEXT: A method is described of determining simultaneously Ca, Ba, Zn and P in lubricating oils. To prevent the influence of interfering elements a 3% solution of Li was introduced as a buffer of the solutions. Two variants were worked out for the separation of Li in discharge and standardization. According to the first variant, the analysis is carried out with three standards, prepared by diluting the same additive as the determined sample. The hot carbon electrodes are saturated with the samples and the carbons are dried for 1.5-2 hours at 400-450 °C. The internal standard Co is introduced in the form of 2% solution of Co naphthenate in oil, its quantity being 1/3 of the sample volume. The spectra are taken by ИСП-28 (ISP-28) spectrograph

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Direct spectrographic determination..

with a threelense condenser without an intermediate diaphragm with an 0.012 mm slit. The excitation source is an alternating current arc at 5 amperes. Electrodes: the upper - carbon containing the sample; the lower - carbon with a rounded end: the distance between the electrodes is 3 mm. The plates are "spectral" ones, type I, of sensitivity 0.8 units ГОСТ (GOST) for the shortwave region of the spectrum. The calibration graphs are linear. According to the second variant only one standard is used irrespective of the additive type. The carbons are kept for 20-50 min in the solution containing 3% Li ($LiCO_3$ is dissolved in water with the addition of CH_3COOH), dried with a filter paper and used as counter-electrodes. Subsequently the analysis is similar to the first variant. The square error in both variants 6%. The method was applied also to used oils for the determination of the active part of the elements. Analytical pairs of the lines (in Å) and concentration ranges (in %, in brackets) are: Ba 2335.3 - Co 2286.2 (0.02-0.4), Zn 3345.0, 3345.6, 3302.0, 3302.6 - Co 3044.0 (0.003-0.10), P 2535.6 - Co 2286.2 and 2373.6 (0.005-0.13), Ca 3179.3 - Co 3044.0 and 3417.2,

Card 2/3

Direct spectrographic determination... S/081/62/000/011/019/057
E075/E136

Ca 2398.6 - Co 2276.5 and 2286.2, Ca 3006.9 - Co 3044.9 (0.05 - 0.12 and 0.1 - 0.9).

[Abstractor's note: Complete translation.]

Card 3/3

Z/011/62/019/008/002/003
E073/E435

AUTHORS: Sirjuk, A.G., Zimina, K.I.

TITLE: Special features of ultraviolet spectra of certain types of aromatic hydrocarbons

PERIODICAL: Chemie a chemická technologie. Přehled technické a hospodářské literatury, v.19, no.8, 1962, 366, abstract Ch 62-4962. (Khimiya i tekhnologiya topliv i masel, v.7, no.5, 1962, 23-26)

TEXT: Characteristic absorption bands of spectra of monocyclic aromatic hydrocarbons, naphthalenes, phenanthrenes, anthracenes, pyrenes and chrysenes intended to satisfy research laboratories in the petroleum industry. 3 figures, 2 tables, 4 references.

[Abstracter's note: Complete translation.]

Card 1/1

BOLOTOVA, G.I.; KOTOVA, G.G.; ZIMINA, K.I.; ISAGULYANTS, V.I.

Investigating the synthesis of homologous series of individual potassium dialkyl- and diaryldithiophosphates and studying their structure by the method of infrared spectrometry. Izv. vys ucheb. zav.; neft' i gaz. 8 no.5:62 '65. (MIRA 18:7)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika I.M[illegible]kina.

LIPSHTEYN, R.A., kand.tekhn.nauk; MIKHEL'SON, A.Ya., inzh.; ZIMINA, K.I., kand. tekhn.nauk; SOSINA, N.S., inzh.

Possibility for regenerating oils inhibited by an additive. Elek. sta. 36 no.10:34-36 O '65. (MIRA 18:10)

LYUBIMOV, A.N.; VARENIK, A.F.; ZIMINA, K.I.; MATVEYEV, Ye.L.; MALAKHAYEV, Ye.M.

Method for finding the optimum location for the magnet of a nuclear magnetic resonance spectrometer of high resolving power. Zav. lab. 31 no.8:1023-1025 '65. (MIRA 18:9)

1. Nauchno-issledovatel'skiy institut po pererabotke nefti.

ADAMASHVILI, Yu.D.; ZIMINA, K.Kh.; PLATONOV, V.A.; LIKHOVITSKIY, A.A.; SAMAROV, A.V.; SVECHINSKIY, V.L.

Some problems in the planning of cities and settlements in districts of the Far North and Northeast. Stroi. v raion. Vost. Sib. i Krain. Sev. no.2:28-40 '62. (MIRA 18:7)